

REMARKS

Claims 1-4 are pending in the present application. No new matter has been presented.

Claim Rejections - 35 U.S.C. §103(a)

Claims 1-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi 6,632,572.

The Examiner admits that Takahashi does not expressly disclose the claimed vinylene carbonate or claimed cycloalkylbenzene ratios of 0.5 to 10 parts by mass per 100 parts by mass of the solvent. The Examiner concludes that it would have been obvious to employ the claimed solvents in the amount of 0.5 to 10 parts by mass per 100 parts by mass of the solvent, because doing so would be no more than discovering an optimum value of a result-effective variable. The Examiner asserts that a skilled artisan would have recognized that the solvent concentration directly effects ion conductivity between the electrodes.

Applicants respectfully disagree with the rejection because not all of the claimed limitations are taught or suggested by the cited reference.

Claim 1 requires a non-aqueous electrolyte secondary cell, comprising a non-aqueous solvent including

a cycloalkylbenzene derivative,

tert-amylbenzene, and

an unsaturated cyclic carbonate derivative.

In other words, claim 1 includes a cycloalkylbenzene derivative, tert-amylbenzene and an unsaturated cyclic carbonate derivative as an essential component.

The Examiner asserts that, "Takahashi teaches a nonaqueous secondary battery comprising a nonaqueous electrolyte containing at least one type selected from a sulfone compound, cyclic sulfate, and vinylene carbonate and at least one type selected from an alkyl benzene derivative having tertiary carbon neighboring phenyl groups, a cycloalkyl benzene derivative, and a biphenyl derivative. The battery also includes a positive electrode 3 and a negative electrode 4. See abstract." (Office Action, page 2).

However, Applicants note that Takahashi et al. describes only a cycloalkylbenzene derivative, and does not disclose tert-amylbenzene and an unsaturated cyclic carbonate.

The Examiner asserts that Takahashi et al. teaches vinylene carbonate. Applicants disagree with this characterization of Takahashi et al., and submit that Takahashi et al. does not teach vinylene carbonate. Takahashi et al. describes ethylene carbonate (EC), diethyl carbonate (DEC), dimethyl carbonate (DMC), methyl ethyl carbonate (MEC) and propylene carbonate (PC) as an electrolyte solvent (claim 7). However, none of these solvents is an unsaturated cyclic carbonate. In other words, diethyl carbonate (DEC), dimethyl carbonate (DMC) and methyl ethyl carbonate (MEC) are a linear carbonate. Further, ethylene carbonate (EC) and propylene carbonate (PC) are a cyclic carbonate, but not an unsaturated cyclic carbonate.

In view of the aforementioned remarks, Applicants submit that the claims are in condition for allowance. Applicants request such action at an early date.

Application No. 10/509,756
Attorney Docket No. 042751

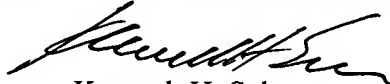
Response under 37 C.F.R. §1.111
Response filed December 31, 2008

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



Kenneth H. Salen
Attorney for Applicants
Registration No. 43,077
Telephone: (202) 822-1100
Facsimile: (202) 822-1111

KHS/mra